

**REGION II RST 2 HEALTH AND SAFETY PLAN
EMERGENCY RESPONSE/REMOVAL ASSESSMENT/REMOVAL ACTION
(Revised 16 March 2011)**

TDD No.: TO-0029-0151

Site Name: Superior Barrel and Drum Assessment 2 Site

Site Address: Street No.: 798 Jacob Harris Road

City: Elk Township

County/State: Gloucester/New Jersey

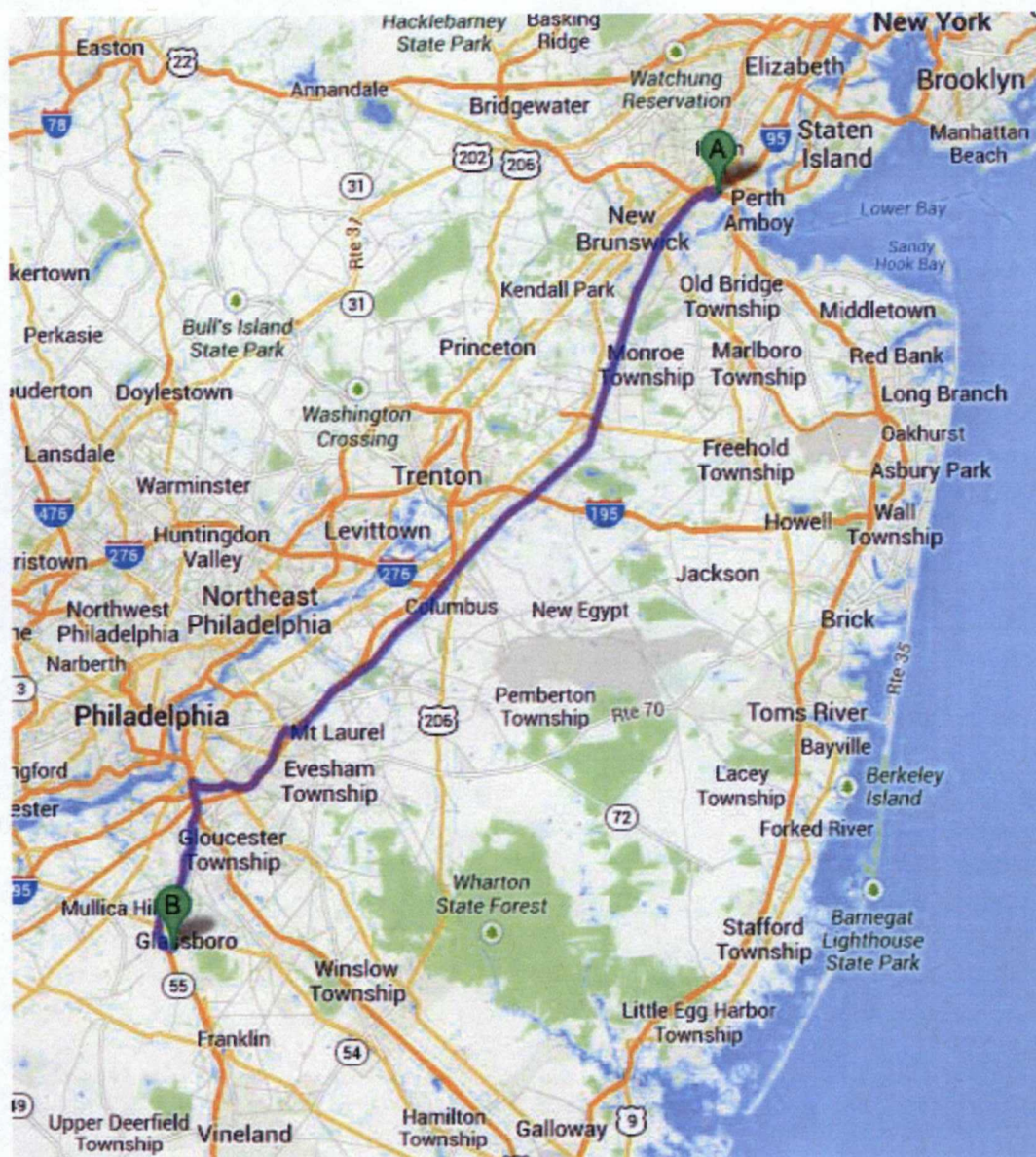
Directions to Site from Office: (Attach Color Map Following This Page)

1. Head west toward King Georges Rd/King Georges Post Rd 302 ft
2. Turn left onto King Georges Rd/King Georges Post Rd 0.5 mi
3. Turn right onto Raritan Center Pkwy 276 ft
4. Keep right at the fork, follow signs for Middlesex County 514 E/Woodbridge Ave/I-287/NJ-440 and merge onto Woodbridge Ave 0.4 mi
5. Take the I-95 ramp 0.9 mi
6. Follow signs for Trenton 0.4 mi
7. Keep left at the fork and merge onto I-95 S 27.8 mi
8. Continue onto New Jersey Turnpike S 25.9 mi
9. Take exit 4 for New Jersey 73 0.5 mi
10. Keep right at the fork, follow signs for NJ-73 N and merge onto NJ-73 N 0.7 mi
11. Slight right to merge onto I-295 S toward Del Memorial Bridge 10.9 mi
12. Take the exit on the left onto NJ-42 S toward Atlantic City 1.4 mi
13. Take exit 13 to merge onto NJ-55 S toward Glassboro/Vineland 11.4 mi
14. Take exit 48 toward Ferrell/Glassboro 0.2 mi
15. Turn left onto Ellis St/Ellis Mill Rd
Continue to follow Ellis St 0.7 mi
16. Turn right onto Jacob Harris Ln 0.2 mi

Destination is 82.1 miles = 1 hours and 20 minutes



Directions to Site from Office: (Concluded)



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Historical/Current Site Information:

On August 29, 2013, the New Jersey Department of Environmental Protection (NJDEP) notified the U.S. Environmental Protection Agency (EPA), Region II Regional Emergency Operations Center (REOC) of deteriorated conditions at the Superior Barrel and Drum Site (the Site). NJDEP Emergency Response personnel requested the assistance of EPA On-Scene Coordinators (OSCs) with investigating conditions of containers at the facility.

On August 30, 2013, EPA OSCs met with NJDEP and Gloucester County officials at the Site. Thousands of containers were observed, mostly 275-gallon totes and 55-gallon drums, located along the road as well as in the woods, wetlands, and elsewhere throughout the property. Containers were stacked several high in various locations and were shown to be in various states of deterioration. Containers were found to be leaking, void of tops, exposed to weather elements, rusted, damaged due to gunshots, stored improperly, and laying on their sides.

Numerous trailers were also found to be open and containing 55-gallon drums. The containers throughout the Site appeared to be full of contents, however, most did not have labels. Labels on some containers included flammable liquids, corrosive, marine pollutant, flammable solid, and non-hazardous material.

NJDEP collected samples from four random containers, all 55-gallon drums. Field screening tests were conducted on the selected drums using photoionization detectors (PIDs), HazMat ID, pH, and others. Contents revealed materials to be corrosive, highly flammable, and having high readings of volatile organic compounds (VOCs). The materials sampled did not reflect the labels on the containers, which indicated the contents were non-hazardous.

County officials indicated that attempts to reach the property owner failed numerous times. The owner filed for bankruptcy in 2012 but the case was dismissed due to lack of information provided by the plaintiff.

NJDEP referred the Site to EPA on August 30, 2013 due to the conditions at the Site, including drum contents spilled in wetlands, contents pooling alongside the road, and unsecured access to the facility.

The Site is located at 798 Jacob Harris Road in Elk Township, Gloucester County, New Jersey (coordinates 39.6869, -75.132314). The facility consists of a main processing building and numerous trailers located throughout the 5.5 acre property. The entrance to the facility is down a dirt road. The northern portion of the Site is bordered by the Industrial Drum Company, a competitor in the drum reconditioning business. A chain-link fence separates the two properties. Jacob Harris Road marks the eastern boundary of the Site, beyond which is a densely forested property. To the South are private lands which are also densely wooded with several marshy areas. The western boundary is indicated by Rt. 55, a major highway. Currently, the facility is inoperable with last known operational activity occurring in 2012. Several companies have been to the property in efforts to remove machinery and equipment.

The Site consists of two operational areas. The main area is where the permanent steel structure is located. This area would receive containers, rinse the containers, and recondition them for future market. This area is approximately 2.4 acres with containers located throughout. The additional operational area appears to be mainly storage of full 275-gallon and 55-gallon totes, with several trailers holding containers. This area encompasses approximately 0.32 acres of land, also holding hundreds of totes and drums. Both areas show signs of impact from leaking containers or dumping of materials.

EPA conducted a Removal Assessment at the Site in September 2013. Waste samples were collected from the drums, tanks, and other containers on site, as well as surface water and soil samples. Samples were screened in the field by EPA's Emergency and Rapid Response Services (ERRS) contractor using a HazCat field screening kit. Field screening results indicated that many of these containers housed hazardous materials, including flammables and corrosives. More than 100 of these samples were sent to a laboratory for target compound list (TCL) VOC, semivolatile organic compound (SVOC), polychlorinated biphenyl (PCB), pesticide, target analyte list (TAL) metal, mercury, and cyanide analyses. Results from this sampling indicated high levels of TCL VOCs and SVOCs within many of the containers, as well as TCL PCBs and pesticides in some of the containers. Results also indicated that contamination of some of the on-site soils had occurred.

On September 30, 2013, the EPA initiated a Removal Action at the Site. The objectives of the Removal Action were to characterize each container, segregate containers into compatible staging areas, and remove all containers from the Site. The Removal Action at the Site is ongoing and is anticipated to be completed in June 2014.

RST 2 Scope of Work:

As part of the Phase II of the Removal Assessment, Weston Solutions, Inc., Removal Support Team 2 (RST 2) is tasked by the EPA to sample sediments located at both on-site and off-site locations, including wetland areas. Up to 20 sediment samples will be collected and submitted for TCL VOC, SVOC, PCB, pesticide, and TAL metal, including mercury and cyanide, analyses.

Three (3) S.M.A.R.T. Health and Safety Goals for the Project (Simple, Measurable, Actionable, Reasonable, & Timely):

1. Safe sediment sampling practices, including utilizing proper personnel protective equipment (PPE) during sample collection activities.
2. Be aware of surrounding areas and walking surfaces, especially when working over water, minimizing slips, trips, and falls.
3. Safe navigation (no accidents) while in the vehicle.

Incident Type:

- ☐ Emergency Response
- ☒ Removal Assessment: May 5 and 6, 2014
- ☐ Removal Action
- ☐ Residential Sampling/Investigation
- ☐ PRP Oversight
- ☐ Other

Location Class:

- ☒ Industrial
- ☐ Commercial
- ☐ Urban/Residential
- ☒ Rural

U.S. EPA OSC: Keith Glenn
Original HASP: Yes
Lead RST 2: Peter Lisichenko

Date of Initial Site Activities: 5/5/2014
Site Health & Safety Coordinator: Peter Lisichenko
Site Health & Safety Alternate: Patrick Ahern

Response Activities/Dates of Response (fill in as applicable)

Emergency Response:

- ☐ Perimeter Recon.
- ☐ Site Entry
- ☐ Visual Documentation
- ☐ Multi-Media Sampling
- ☐ Decontamination

Assessment:

- ☒ Perimeter Recon: May 5, 2014
- ☒ Site Entry: May 5 and 6, 2014
- ☒ Visual Documentation: May 5 and 6, 2014
- ☒ Multi-Media Sampling: May 5 and 6, 2014
- ☒ Decontamination: May 5 and 6, 2014

Physical Safety Hazards to Personnel

- | | | |
|---|---|--|
| <input checked="" type="checkbox"/> Inclement Weather – Attach FLD02 | <input checked="" type="checkbox"/> Heat – Attach FLD05 | <input type="checkbox"/> Cold – Attach FLD06 |
| <input type="checkbox"/> Confined Space – Attach FLD08 | <input type="checkbox"/> Industrial Trucks – Attach FLD09 | <input type="checkbox"/> Manual Lifting – Attach FLD10 |
| <input type="checkbox"/> Terrain – Attach FLD11 | <input type="checkbox"/> Structural Integrity – Attach FLD13 | <input type="checkbox"/> Site Security – Attach FLD14 |
| <input type="checkbox"/> Pressurized Containers, Systems – Attach FLD16 | <input type="checkbox"/> Use of Boats – Attach FLD18 | <input checked="" type="checkbox"/> Waterways – Attach FLD19 |
| <input type="checkbox"/> Explosives – Attach FLD21 | <input checked="" type="checkbox"/> Heavy Equipment – Attach FLD22 | <input type="checkbox"/> Aerial Lifts and Manlifts – Attach FLD24 |
| <input type="checkbox"/> Elevated Surfaces and Fall Protection – Attach FLD25 | <input type="checkbox"/> Ladders – Attach FLD26 | <input type="checkbox"/> Excavations/Trenching – Attach FLD28 |
| <input type="checkbox"/> Fire Prevention – Attach FLD31 | <input type="checkbox"/> Demolition – Attach FLD33 | <input type="checkbox"/> Underground/Overhead Utilities – Attach FLD34 |
| <input type="checkbox"/> Hand and Power Tools – Attach FLD38 | <input type="checkbox"/> Illumination – Attach FLD39 | <input type="checkbox"/> Storage Tanks – Attach FLD40 |
| <input type="checkbox"/> Lead Exposure – Attach FLD46 | <input checked="" type="checkbox"/> Sample Storage – Attach FLD49 | <input type="checkbox"/> Cadmium Exposure – Attach FLD50 |
| <input type="checkbox"/> Asbestos Exposure – Attach FLD52 | <input type="checkbox"/> Hexavalent Chromium Exposure – Attach FLD 53 | <input type="checkbox"/> Benzene Exposure – Attach FLD 54 |

- | | | |
|---|--|---|
| <input type="checkbox"/> Drilling Safety – Attach FLD56 | <input type="checkbox"/> Drum Handling – Attach FLD58 | <input type="checkbox"/> Gasoline Contaminant Exposure – Attach FLD61 |
| <input type="checkbox"/> Noise – Attach CECHSP, Section 7 | <input checked="" type="checkbox"/> Walking/Working Surfaces | <input type="checkbox"/> Oxygen Deficiency |
| <input type="checkbox"/> Unknowns in Tanks or Drums | <input type="checkbox"/> Nonionizing Radiation | <input type="checkbox"/> Ionizing Radiation |

Biological Hazards to Personnel

- | | |
|---|--|
| <input type="checkbox"/> Infectious/Medical/Hospital Waste – Attach FLD 44 and 45 | <input checked="" type="checkbox"/> Non-domesticated Animals – Attach FLD43A |
| <input checked="" type="checkbox"/> Insects – Attach FLD 43B | <input checked="" type="checkbox"/> Poisonous Plants/Vegetation – Attach FLD 43D |
| <input type="checkbox"/> Raw Sewage | <input type="checkbox"/> Bloodborne Pathogens – Attach FLD 44 and 45 |

Training Requirements

- | | |
|---|--|
| <input checked="" type="checkbox"/> 40-Hour HAZWOPER Training with three days supervised experience | <input type="checkbox"/> 8-Hour Management or Supervisor Training in addition to basic training course |
| <input checked="" type="checkbox"/> 8-Hour Annual Refresher Health and Safety Training | <input type="checkbox"/> Site Specific Health and Safety Training |
| <input type="checkbox"/> DOT (CMV Training - ERV in Use) | <input type="checkbox"/> Bio-Medical Collection and Response |

Medical Surveillance Requirements

- | | |
|--|---|
| <input checked="" type="checkbox"/> Baseline initial physical examination with physician certification | <input checked="" type="checkbox"/> Annual medical examination with physician certification |
| <input type="checkbox"/> Site Specific medical monitoring protocol (Radiation, Heavy Metals) | <input type="checkbox"/> Asbestos Worker medical protocol |

Vehicle Use Assessment and Selection

Driving is one of the most hazardous and frequent activities for Weston Employees. As such, Weston Employees are required to adhere to established safe operating practices in order to maintain their eligibility to drive Weston owned, leased, or rented vehicles. Every person riding in a Weston vehicle, including passengers must maintain a commitment for a safe journey. This means being attentive while in the vehicle and helping the driver to notice hazards ahead of and around the vehicle and ensure that their presence does not distract the driver from safely operating the vehicle.

A high percentage of vehicle accidents occur when operating in reverse. Anytime a vehicle is operated in reverse, e.g., backing out of a parking area, if there are passengers, at least one of them are to assist the driver by acting as a guide person during the reverse movement or during other vehicle operation where it would be prudent to have a guide person(s) participate in the vehicle movement. When practical, the preferred parking method would be to back into the parking area. At a minimum, each Weston Driver must:

- Possess a current, valid drivers' license
- Obey posted speed limits and other traffic laws
- Wear seat belts at all times while the vehicle is in operation
- Conduct a 360 degree inspection around the vehicle before attempting to drive the vehicle
- Report accidents / incidents immediately and complete a Notice of Incident (NOI)
- Keep vehicles on approved roadways (4WD doesn't guarantee mobility on unapproved surfaces)

All Region II RST personnel are experienced and qualified to drive RST fleet vehicles (Trailblazers, Suburbans, Cargo Van, and 10' x 12' Box Truck). However, in the event that vehicle rental is required, each person must take the time to familiarize themselves with that particular vehicle. This familiarization includes adjustment of the dashboard knobs/controls, mirrors, steering wheel, seats, and a 360 degree external inspection of the vehicle.

1. The following vehicles are anticipated to be used on this project:

- | | |
|--|---|
| <input type="checkbox"/> Car | <input type="checkbox"/> Pickup Truck |
| <input type="checkbox"/> Intermediate/Standard SUV (e.g. Chevy Trailblazer, Chevy Tahoe, Ford Explorer, Ford Escape) | <input checked="" type="checkbox"/> Full Size SUV (e.g. Chevy Suburban, Ford Expedition, GMC Yukon) |
| <input type="checkbox"/> Minivan/Cargo Van (e.g. Chevy Uplander) | <input type="checkbox"/> Box Truck (Size: _____) |
| <input type="checkbox"/> Emergency Response Vehicle (ERV) | <input type="checkbox"/> Other _____ |

2. Are there any on-site considerations that should be noted?

- | | | | |
|--|---|--|--|
| <input checked="" type="checkbox"/> Working/Driving Surfaces | <input type="checkbox"/> Debris | <input type="checkbox"/> Overhead Clearance | <input checked="" type="checkbox"/> Obstructions |
| <input type="checkbox"/> Tire Puncture Hazards | <input type="checkbox"/> Vegetation | <input checked="" type="checkbox"/> Terrain | <input checked="" type="checkbox"/> Parking |
| <input checked="" type="checkbox"/> Congestion | <input checked="" type="checkbox"/> Site Entry/Exit Hazards | <input checked="" type="checkbox"/> Local Traffic Volume | <input checked="" type="checkbox"/> Security |
| <input type="checkbox"/> Heavy Equipment | <input type="checkbox"/> Time/Length of Work Day | <input type="checkbox"/> Other: | |

Do any of the considerations above require further explanation: No

3. Was the WESTON Environmental Risk Management Tool completed in EHS? Yes

Was an Environmental Compliance Plan required? No

4. Are there any seasonal considerations that should be noted (e.g., Anticipated Snowy Conditions): No

5. Is a Traffic Control Plan required?

☐ Yes ☒ No

Chemical Hazards to Personnel

Physical Parameters	Acetone	Toluene	Ethylbenzene
Exposure Limits IDLH Level	<u>1,000</u> ppm <u> </u> mg/m ³ PEL <u>250</u> ppm <u> </u> mg/m ³ REL <u>2,500</u> ppm <u> </u> mg/m ³ IDLH	<u>200</u> ppm <u> </u> mg/m ³ PEL <u>100</u> ppm <u> </u> mg/m ³ REL <u>500</u> ppm <u> </u> mg/m ³ IDLH	<u>100</u> ppm <u> </u> mg/m ³ PEL <u>100</u> ppm <u> </u> mg/m ³ REL <u>800</u> ppm <u> </u> mg/m ³ IDLH
Physical Form (Solid/Liquid/Gas) Color	<u> </u> Solid <u>X</u> Liquid <u> </u> Gas <u>Colorless</u> Color	<u> </u> Solid <u>X</u> Liquid <u> </u> Gas <u>Colorless</u> Color	<u> </u> Solid <u>X</u> Liquid <u> </u> Gas <u>Colorless</u> Color
Odor	Fragrant, mint-like odor	Sweet, pungent, benzene-like odor	Aromatic odor
Flash Point Flammable Limits	<u>0</u> Degrees F <u>12.8</u> % UEL <u>2.5</u> % LEL	<u>40</u> Degrees F <u>7.1</u> % UEL <u>1.1</u> % LEL	<u>55</u> Degrees F <u>6.7</u> % UEL <u>0.8</u> % LEL
Vapor Pressure Vapor Density	<u>180</u> mmHg <u>NA</u> Air = 1	<u>21</u> mmHg <u>NA</u> Air = 1	<u>7</u> mmHg <u>NA</u> Air = 1
Specific Gravity	<u>0.79</u> Water = 1	<u>0.87</u> Water = 1	<u>0.87</u> Water = 1
Solubility	Miscible	0.07%	0.01%
Incompatible Material	Oxidizers, acids	Strong oxidizers	Strong oxidizers
Routes of Exposure	<u>X</u> Inh <u>X</u> Abs <u> </u> Inj <u>X</u> Ing	<u>X</u> Inh <u>X</u> Abs <u> </u> Inj <u>X</u> Ing	<u>X</u> Inh <u>X</u> Abs <u> </u> Inj <u>X</u> Ing
Symptoms of Acute Exposure	Irritation eyes, nose, throat; headache, dizziness, central nervous system depression; dermatitis	Irritation eyes, nose; lassitude (weakness, exhaustion), confusion, euphoria, dizziness, headache; dilated pupils, lacrimation (discharge of tears); anxiety, muscle fatigue, insomnia; paresthesia; dermatitis; liver, kidney damage	Irritation eyes, skin, mucous membrane; headache; dermatitis; narcosis, coma
First Aid Treatment	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
Ionization Potential	<u>9.69</u> eV	<u>8.82</u> eV	<u>8.76</u> eV
Instruments for Detection	<u>X</u> PID w/ <u>10.6</u> Probe <u> </u> FID <u> </u> CGI <u> </u> RAD <u> </u> Det Tube <u> </u> pH Other	<u>X</u> PID w/ <u>10.6</u> Probe <u> </u> FID <u> </u> CGI <u> </u> RAD <u> </u> Det Tube <u> </u> pH Other	<u>X</u> PID w/ <u>10.6</u> Probe <u> </u> FID <u> </u> CGI <u> </u> RAD <u> </u> Det Tube <u> </u> pH Other

Chemical Hazards to Personnel (Continued)

Physical Parameters	m-Xylene	Styrene	Cyclohexane
Exposure Limits IDLH Level	100 ppm mg/m ³ PEL 100 ppm mg/m ³ REL 900 ppm mg/m ³ IDLH	100 ppm mg/m ³ PEL 50 ppm mg/m ³ REL 700 ppm mg/m ³ IDLH	300 ppm mg/m ³ PEL 300 ppm mg/m ³ REL 1,300 ppm mg/m ³ IDLH
Physical Form (Solid/Liquid/Gas) Color	___ Solid <input checked="" type="checkbox"/> Liquid ___ Gas Colorless ___ Color	___ Solid <input checked="" type="checkbox"/> Liquid (Oily) ___ Gas Colorless to Yellow ___ Color	<input checked="" type="checkbox"/> Solid <input checked="" type="checkbox"/> Liquid ___ Gas Colorless ___ Color
Odor	Aromatic odor	Sweet, floral odor	Colorless liquid with a sweet, chloroform-like odor. [Note: A solid below 44°F.]
Flash Point Flammable Limits	82 Degrees F 7.0 % UEL 1.1 % LEL	88 Degrees F 6.8 % UEL 0.9 % LEL	0 Degrees F 8 % UEL 1.3 % LEL
Vapor Pressure Vapor Density	9 mmHg NA Air = 1	5 mmHg NA Air = 1	78 mmHg NA Air = 1
Specific Gravity	0.86 Water = 1	0.91 Water = 1	0.78 Water = 1
Solubility	Slight	0.03%	Insoluble
Incompatible Material	Strong oxidizers, strong acids	Oxidizers, catalysts for vinyl polymers, peroxides, strong acids, aluminum chloride [Note: May polymerize if contaminated or subjected to heat. Usually contains an inhibitor such as tert-butylcatechol.]	Oxidizers
Routes of Exposure	<input checked="" type="checkbox"/> Inh <input checked="" type="checkbox"/> Abs ___ Inj <input checked="" type="checkbox"/> Ing	<input checked="" type="checkbox"/> Inh <input checked="" type="checkbox"/> Abs ___ Inj <input checked="" type="checkbox"/> Ing	<input checked="" type="checkbox"/> Inh <input checked="" type="checkbox"/> Abs ___ Inj <input checked="" type="checkbox"/> Ing
Symptoms of Acute Exposure	Irritation eyes, skin, nose, throat; dizziness, excitement, drowsiness, incoordination, staggering gait; corneal vacuolization; anorexia, nausea, vomiting, abdominal pain; dermatitis	irritation eyes, nose, respiratory system; headache, lassitude (weakness, exhaustion), dizziness, confusion, malaise (vague feeling of discomfort), drowsiness, unsteady gait; narcosis; defatting dermatitis; possible liver injury; reproductive effects	Irritation eyes, skin, respiratory system; drowsiness; dermatitis; narcosis, coma
First Aid Treatment	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately	Eye: Irrigate immediately Skin: Water flush Breathing: Respiratory support Swallow: Medical attention immediately	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
Ionization Potential	8.56 eV	8.40 eV	9.88 eV
Instruments for Detection	<input checked="" type="checkbox"/> PID w/ 10.6 Probe ___ FID ___ CGI ___ RAD ___ Det Tube ___ pH Other	<input checked="" type="checkbox"/> PID w/ 10.6 Probe ___ FID ___ CGI ___ RAD ___ Det Tube ___ pH Other	<input checked="" type="checkbox"/> PID w/ 10.6 Probe ___ FID ___ CGI ___ RAD ___ Det Tube ___ pH Other

Chemical Hazards to Personnel (Concluded)

Physical Parameters	Methyl Ethyl Ketone	Trichloroethylene	Naphthalene
Exposure Limits IDLH Level	<u>200</u> ppm <u> </u> mg/m ³ PEL <u>200</u> ppm <u> </u> mg/m ³ REL <u>3,000</u> ppm <u> </u> mg/m ³ IDLH	<u>100</u> ppm <u> </u> mg/m ³ PEL <u>None</u> ppm <u> </u> mg/m ³ REL <u>1,000</u> ppm <u> </u> mg/m ³ IDLH	<u>10</u> ppm <u> </u> mg/m ³ PEL <u>10</u> ppm <u> </u> mg/m ³ REL <u>250</u> ppm <u> </u> mg/m ³ IDLH
Physical Form (Solid/Liquid/Gas) Color	<u> </u> Solid <u>X</u> Liquid <u> </u> Gas <u>Colorless</u> <u> </u> Color	<u> </u> Solid <u>X</u> Liquid <u> </u> Gas <u>Colorless or dyed blue</u> <u> </u> Color	<u>X</u> Solid <u> </u> Liquid <u> </u> Gas <u>Colorless to brown</u> <u> </u> Color
Odor	Moderately sharp, fragrant, mint- or acetone-like odor	Chloroform-like odor	Mothball odor
Flash Point Flammable Limits	<u>16</u> Degrees F <u>11.4</u> % UEL <u>1.4</u> % LEL	<u>7</u> Degrees F <u>10.5</u> % UEL <u>8</u> % LEL	<u>174</u> Degrees F <u>5.9</u> % UEL <u>0.9</u> % LEL
Vapor Pressure Vapor Density	<u>78</u> mmHg <u>NA</u> Air = 1	<u>58</u> mmHg <u>NA</u> Air = 1	<u>0.8</u> mmHg <u>NA</u> Air = 1
Specific Gravity	<u>0.81</u> Water = 1	<u>1.46</u> Water = 1	<u>1.15</u> Water = 1
Solubility	28%	0.1%	0.003%
Incompatible Material	Strong oxidizers, amines, ammonia, inorganic acids, caustics, isocyanates, pyridines	Strong caustics & alkalis; chemically-active metals (such as barium, lithium, sodium, magnesium, titanium & beryllium)	Strong oxidizers, chromic anhydride
Routes of Exposure	<u>X</u> Inh <u>X</u> Abs <u> </u> Inj <u>X</u> Ing	<u>X</u> Inh <u>X</u> Abs <u>X</u> Inj <u>X</u> Ing	<u>X</u> Inh <u>X</u> Abs <u> </u> Inj <u>X</u> Ing
Symptoms of Acute Exposure	Irritation eyes, skin, nose; headache; dizziness; vomiting; dermatitis	irritation eyes, skin; headache, visual disturbance, lassitude (weakness, exhaustion), dizziness, tremor, drowsiness, nausea, vomiting; dermatitis; cardiac arrhythmias, paresthesia; liver injury; [potential occupational carcinogen]	Irritation eyes; headache, confusion, excitement, malaise (vague feeling of discomfort); nausea, vomiting, abdominal pain; irritation bladder; profuse sweating; jaundice; hematuria (blood in the urine), renal shutdown; dermatitis, optical neuritis, corneal damage
First Aid Treatment	Eye: Irrigate immediately Skin: Water wash immediately Breathing: Fresh air Swallow: Medical attention immediately	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately	Eye: Irrigate immediately Skin: Molten flush immediately/solid-liquid soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately
Ionization Potential	<u>9.54</u> eV	<u>9.45</u> eV	<u>8.12</u> eV
Instruments for Detection	<u>X</u> PID w/ <u>10.6</u> Probe <u> </u> FID <u> </u> CGI <u> </u> RAD <u> </u> Det Tube <u> </u> pH Other	<u>X</u> PID w/ <u>10.6</u> Probe <u> </u> FID <u> </u> CGI <u> </u> RAD <u> </u> Det Tube <u> </u> pH Other	<u>X</u> PID w/ <u>10.6</u> Probe <u> </u> FID <u> </u> CGI <u> </u> RAD <u> </u> Det Tube <u> </u> pH Other

Site Map with Work Zones: Work zones are currently unknown. The appropriate work zones will be determined on-site at time of site orientation.



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Work Zone Definitions:

Exclusion Zone – The Exclusion Zone is the area where contamination is either known or expected to occur and the greatest potential for exposure exists. The outer boundary of the Exclusion Zone, called the Hotline, separates the area of contamination from the rest of the Site.

Contamination Reduction Zone (CRZ) – The CRZ is the area in which decontamination procedures take place. The purpose of the CRZ is to reduce the possibility that the Support Zone will become contaminated or affected by the Site hazards.

Support Zone – The Support Zone is the uncontaminated area where workers are unlikely to be exposed to hazardous substances or dangerous conditions. The Support Zone is the appropriate location for the command post, medical station, equipment and supply center, field laboratory, and any other administrative or support functions that are necessary to keep site operations running efficiently.

Communications:

- | | | | |
|-------------------------------------|--------------------------|-------------------------------------|------------------------------|
| <input checked="" type="checkbox"/> | Buddy System | <input type="checkbox"/> | Radio |
| <input type="checkbox"/> | Air Horn for Emergencies | <input checked="" type="checkbox"/> | Hand Signals/ Visual Contact |

Personnel Decontamination Procedures:

- | | |
|-------------------------------------|---|
| <input type="checkbox"/> | Wet Decontamination (procedures as follows) |
| <input checked="" type="checkbox"/> | Dry Decontamination (procedures as follows) |

All work will be conducted in Level D Personal Protection Equipment (PPE). All PPE will be void of gross contamination, double bagged and disposed of off-site in accordance with state and local regulations.

Equipment Decontamination Procedures:

- | | |
|-------------------------------------|---|
| <input checked="" type="checkbox"/> | None |
| <input type="checkbox"/> | Wet Decontamination (procedures as follows) |
| <input type="checkbox"/> | Dry Decontamination (procedures as follows) |

It is anticipated that all samples will be collected utilizing dedicated disposable equipment which will be void of gross contamination and disposed of in accordance with federal, state, and local regulations. However, if non-dedicated sampling equipment is used it will be decontaminated on site as follows:

1. Alconox detergent and potable water scrub.
2. Potable water rinse.
3. Deionized water rinse.
4. 10% Nitric Acid rinse.
5. Deionized water rinse.
6. A hexane rinse (pesticide-grade or better).
7. Air dry (sufficient time will be allowed for the equipment to completely dry).
8. Deionized water rinse and air dry.

Adequacy of decontamination determined by: Site Health & Safety Officer

Personal Protective Equipment

TASK TO BE PERFORMED	ANTICIPATED LEVEL OF PROTECTION	TYPE OF CHEMICAL PROTECTIVE COVERALL	INNER GLOVE / OUTER GLOVE / BOOT COVER	APR CARTRIDGE TYPE or SCBA
Sediment Sampling	Modified Level D	Tyvek	Blue Nitrile/Green Nitrile/Latex Booties	N/A
Site Documentation	Level D	None	Nitrile Gloves/Latex boot covers	N/A

Hazard Task Analysis

RISK LEVEL (High, Medium, Low)	TASK/HAZARD	RECOGNITION/ SYMPTOMS	MITIGATION	LEVEL OF PROTECTION
Medium	Sediment Sampling-Hand cuts/puncture	Aware of sampling media and sharp edges	Utilize puncture resistant gloves	Modified Level D
Medium	Reconnaissance/ Sampling- Slips/Trips/Falls	N/A	Aware of area and footing, walk in well lighted areas	Level D

Frequency and Types of Air Monitoring: None.

☒ Continuous

☐ Routine - _____

☐ Periodic - _____

DIRECT READING INSTRUMENTS	MultiRAE CGI / O ₂ / H ₂ S / CL ₂ / CO / PID (10.6 EV Lamp)	Ludlum 19 Micro-R Meter / Ludlum Model 3 Survey Meter	MicroFID or TVA-1000	MiniRae PID (11.7 EV Lamp)	AreaRaes
EQUIPMENT ID NUMBER	TBD				
CALIBRATION DATE	TBD				
RST 2 PERSONNEL	TBD				
ACTION LEVEL	<p>≥ 10 - 20% LEL (Confined Space / non- Confined Space)</p> <p>≤ 19.5% O₂ Deficient ≥ 23% O₂ - Enriched</p> <p>H₂S - PEL: 20 ppm IDLH: 100 ppm</p> <p>Cl₂ - PEL: 1 ppm IDLH: 10 ppm</p>	<p><3X Background Exercise Caution;</p> <p>≥ 1 mR/HR - Exit Area, Establish Perimeter, Contact RST 2 HSO</p>	<p>Unknowns:</p> <p>1 - 5 Units - "Level C"</p> <p>5-500 Units- "Level B"</p>	<p>Unknowns:</p> <p>1 - 5 Units - "Level C"</p> <p>5-500 Units- "Level B"</p>	<p>Mercury Vapors (Except Organo Alkyls):</p> <p>PEL - 0.1 mg/m3 IDLH - 10 mg/m3</p>

Dräger Tubes	Expiration Date	Strokes	Color Change
Nitrogen Dioxide - 2 to 100 PPM	See individual package before use	10 or 5	yellowish-green to bluish-grey
Phosgene - 0.25 to 5 PPM	See individual package	40 or 20	white to red
Hydrochloric Acid - 50 to 5,000 PPM	See individual package	1 or 10	blue to white
Cyanide - 2 to 15 mg/m ³	See individual package	10	yellow to red
Acetic Acid - 5 to 80 PPM	See individual package	3	blue/violet to yellow
Chlorine - 0.2 to 3 PPM	See individual package	10	white to yellowish-orange
Ammonia - 5 to 70 PPM	See individual package	10	yellow to blue

Emergency Telephone Numbers

Emergency Contact	Location / Address	Telephone Number	Notified
Hospital	Cooper University Hospital 2 Plaza Drive Sewell, NJ 08080	(856) 270-4100	No
Ambulance	Monroe Township Ambulance and Rescue Association 700 Corkery Lane Williamstown, NJ 08094	(856) 629-3301 Or call 911	No
Police	Glassboro Police Department 1 South Main Street Glassboro, NJ 08028	(856) 881-1500 Or call 911	No
Fire Department	Glassboro Fire Department 27 High Street East Glassboro, NJ 08028	(856) 881-5008 Or call 911	No

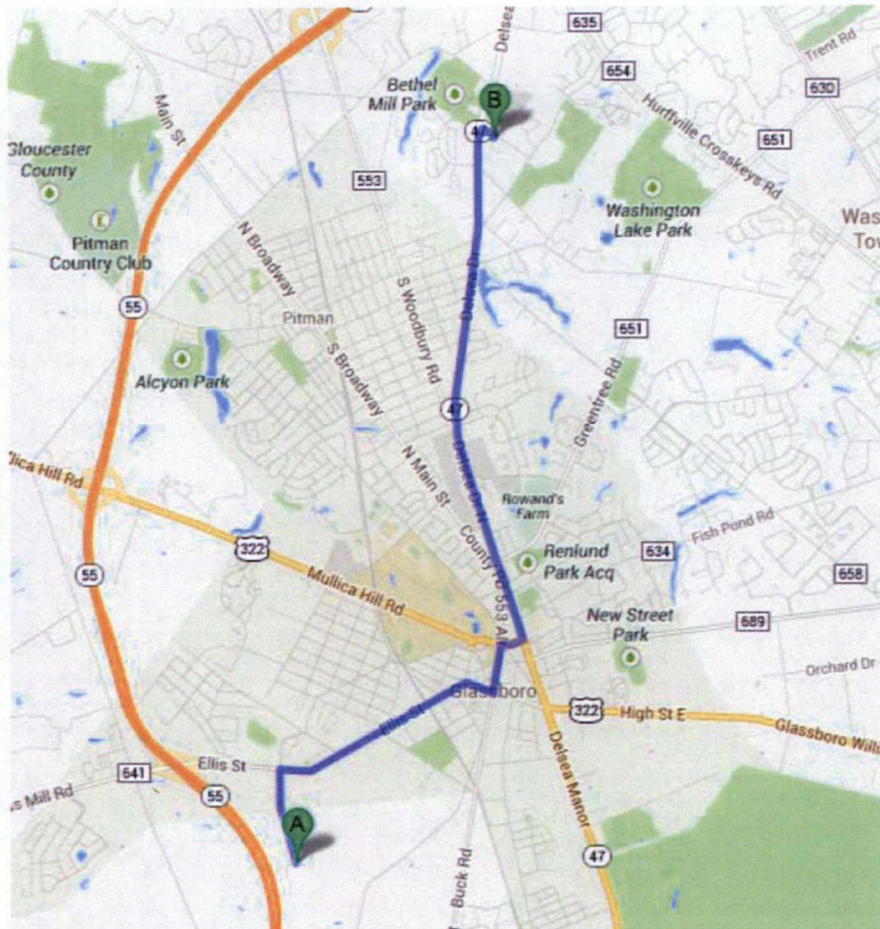
Chemical Trauma Capability? ☒ Yes ☐ No

If no, closest backup: _____ Phone: _____

Directions to Cooper University Hospital:

1. Head north on Jacob Harris Ln toward Ellis St . 0.2 mi
2. Take the 1st right onto Ellis St. 1.2 mi
3. Turn right onto High St. W. 0.2 mi
4. Take the 3rd left onto County Rd 553 Alt/N Main St. 0.3 mi
5. Take the 3rd right onto West St. 0.1 mi
6. Turn left onto Delsea Dr. N. 0.4 mi
7. Turn right onto Greentree Rd. 2.7 mi
8. Turn right onto Hurffville Crosskeys Rd 0.5 mi
9. Take the 3rd right onto Plaza Dr 0.2 mi
Destination will be on the left

Total Estimated Distance: 5.8 miles. Total Estimated Time: 11 minutes



This map is subject to Google's Terms of Service, and Google is the owner of rights therein.

Route verified by: Seund Curry Date: 5/15/14

Additional Emergency Phone Contacts

WESTON Medical Emergency Service Dr. Peter Greaney, Medical Director WorkCare 300 South Harbor Blvd, Suite 600 Anaheim, California 92805	800-455-6155 Regular Business Hours (9AM to 7:30PM) Dial 0 or Ext. 175 for Michelle Bui to request the on-call clinician. 800-455-6155 After Hours (Weekdays 7:31PM to 8:59AM, Weekends, Holidays) Dial 3 to reach the after-hours answering service. Request that the service connect you with the on-call clinician or the on-call clinician will return your call within 30 minutes.
Chemtrec	800-424-9300
ATSDR	404-639-0615
ATF (explosives information)	800-424-9555
National Response Center	800-424-8802
National Poison Control Center	800-764-7661
Chemtel	800-255-3924
DOT	800-424-8802
CDC	800-232-0124

Pre-Response Approval

HASP prepared by: Patrick Ahern

Date: 4/30/2014

Pre-Response/Entry Approval by: 

Date: 4/30/14

Tasks Conducted	Level of Protection/Specific PPE Used
Sediment Sampling	Modified Level D
Site Documentation	Level D

Hazardous Waste Site and Environmental Sampling Activities

Off Site: ☒ Yes ☐ No

On Site: ☒ Yes ☐ No

Describe types of samples and methods used to obtain samples:

RST 2 is tasked with the collection of sediment samples which will be collected from both on-site and off-site locations, including wetland areas. Sediment sampling activities will be conducted in accordance with guidelines outlined in EPA/Environmental Response Team (ERT) Sediment Sampling Standard Operating Procedure (SOP) #2016. Sediment samples will be collected from downstream locations first and continue moving upstream so that the downstream locations are not impacted by the disturbance of sediment from upstream locations. Sediment samples will be collected at up to 20 locations utilizing disposable sampling equipment eliminating the need for equipment decontamination. TCL VOCs samples will be immediately collected utilizing Encore samplers. Then, other sediment samples will be collected with a spatula or sterile scoops and homogenized in a stainless steel bowl or pie pans. The homogenized samples will be placed in glass sample jars for TCL SVOC, PCB, pesticide, TAL Metal, including mercury and cyanide, analyses. Rocks and other debris will be removed from each sample to ensure sufficient sample volume prior to placing it into a jar. Samples must be shipped to the laboratory at the end of each day to meet the required holding time for Encore samples.

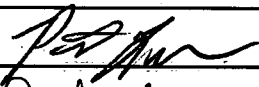
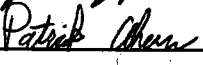
Was laboratory notified of potential hazard level of samples?

☒ Yes ☐ No

Note: The nature of the work assignment may require the use of the following procedures/programs which will be included as attachments to this HASP as applicable: Emergency Response Plan, Confined Space entry Procedures, Spill Containment Program.

Disclaimer: This site-specific HASP was prepared for work to be conducted under the RST 2 Contract EP-W-06-072. Use of this site-specific HASP by WESTON and its subcontractors is intended to fulfill the OSHA requirements found in 29 CFR 1910.120. Items not specifically covered in this HASP are included by reference to 29 CFR 1910 and 1926.

The signatures below indicate that the individuals have read and understood this Health and Safety Plan.

PRINTED NAME	SIGNATURE	AFFILIATION	DATE
POOR LISICHENKO		WESTON	5/5/14
Patrick Ahern		Weston	5/5/14

Post-Response Approval

Final Submission of HASP by:		Date:
Post Response Approval by:		Date:
RST 2 HSO Review by:		Date: